

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.- 35. (canceled)

36. (new) A method for developing dimensional information about an array of objects, the method comprising the steps of:

providing height estimate data for the array of objects;

analyzing the height estimate data to obtain an estimate of the height; and

obtaining additional information about the array of objects using a confocal sensor system based upon the estimate of the height, wherein the confocal sensor system has a spatial filter and a confocal detector to produce sufficient confocal slices of the objects to obtain confocal defect and dimensional information of the objects.

37. (new) The method as claimed in claim 36 further comprising the steps of obtaining a second set of data represented by a region in proximity to the maximum specular reflection and analyzing the second set of data by peak location to reduce optical crosstalk.

38. (new) The method of claim 36 wherein each of the objects has a diameter and wherein the dimensional information is a diameter of at least one of the objects.

39. (new) The method of claim 36 wherein each of the objects has a shiny curved surface which is a re-flowed, substantially spherical, solder ball surface.